

ABSTRACT

THE EFFECT OF ADJUVANT SUBCONJUNCTIVAL DEXAMETHASONE THERAPY ON INTERLEUKIN-6 (IL-6) AND TRANSFORMING GROWTH FACTOR BETA 2 (TGF- β 2) IN PROLIFERATIVE VITREORETINOPATHY *GRADE B-C* VITREOUS FLUID

(Experimental Study in Rhegmatogenous Retinal Detachment patients at DR
Soetomo Hospital Surabaya)

Objective: To evaluate IL-6 and TGF- β 2 levels in the vitreous of PVR *grade B-C* with rhegmatogenous retinal detachment patients that were given subconjunctival dexamethasone adjuvant therapy compared to the group who received no adjuvant therapy at RSUD Dr. Soetomo Surabaya.

Material and Methods: In this experimental study, 36 patients were enrolled and randomly assigned to two groups: adjuvant subconjunctival dexamethasone 10 mg (treatment group: 20 patients) and no adjuvant therapy (control group: 16 patients). Group A (20 patients) was given adjuvant therapy with subconjunctival dexamethasone 10 mg as treatment group, and Group B (16 patients) was not given adjuvant therapy as control group. Dexamethasone 10 mg adjuvant therapy was given 5-6 hours before vitrectomy and vitreous samples were collected by pars plana primary vitrectomy. All vitreous samples were immediately frozen at -80° C. Vitreous levels of IL-6 and TGF- β 2 were measured using Human sandwich ELISA. The outcomes were analyzed using the Mann-Whitney test.

Results: The mean intravitreal IL-6 level was 334.23 pg/ml in the treatment group and the mean intravitreal IL-6 level in the control group was 157.52 pg/ml. The mean intravitreal TGF- β 2 level was 223.93 pg/ml in the treatment group and the mean intravitreal TGF- β 2 level in the control group was 151.85 pg/ml.

Conclusion: There was no significant differences between the reduction of IL-6 and TGF- β 2 levels in the treatment group and the control group.

Keyword: RRD, Subconjunctival injection, Dexamethasone, PVR, IL-6, TGF- β 2, Adjuvant therapy.